

PATENT  
 USSN 09/872,183  
 Docket 094/004d

# REMARKS

This paper is responsive to the Office Action dated January 15, 2004 which is the first action on the merits of the application.

Claims 21-46 were previously pending in the application; claims 43-45 were withdrawn from examination. Upon entry of this Amendment, claims 27-29 are canceled, and claims 47-69 are added. The added claims fall within the group under examination. Accordingly, claims 21-26 and 30-69 are now pending; claims 21-26, 30-42, and 44-69 are under examination.

The amendment to the specification has been made to remove an internet URL, to avoid any complication when the Office publishes the patent on its website. The internet address for GenBank can easily be determined by the reader using a search engine. The amendments to the claims are supported by the claims as previously presented, and do not introduce new matter into the disclosure.

Further consideration and allowance of the application is respectfully requested.

## Interview:

The undersigned thanks Examiner Anne-Marie Falk, Ph.D., for a very cordial and constructive interview held at the Patent Office on March 11, 2004. Amendments to the claims to overcome the issues raised in the Office Action were discussed. Suggestions made at the interview are incorporated into this response.

## Rejections under 35 USC § 112 ¶ 2:

The claims under examination stand rejected under § 112 ¶ 2 for referring to culturing of progeny of the ES cells. The Office Action indicates that this is indefinite because the term "progeny" could cover different cell types.

What was intended by the claims as previously presented, is that the hES cells are cultured with the combination of mitogens and neurotrophins simultaneously or sequentially to initiation of the differentiation process. The section beginning on page 11, line 36 of the specification contemplates that the hES cells can be differentiated to neural cells directly, or by first producing a heterogeneous precursor cell population, such as by forming embryoid bodies. Illustrations of both these embodiments are provided in the working examples.

PATENT  
 USSN 09/872,183  
 Docket 094/004d

To address the issue raised in the Office Action, applicant has adopted what the Examiner recommended at the interview. Claim 21 has been amended to remove the reference to progeny of the hES cells, and claims 27-29 have been cancelled. New claims 47-69 parallel claims 21-42 and 46 as previously presented, and explicitly contemplate the embodiment in which differentiation is initiated before the cells are cultured with the mitogens and neurotrophins.

Applicants thank the Examiner for this recommendation. The claims are now believed to be in compliance with § 112 ¶ 2.

Request for Rejoinder:

Claims 43-45 are method claims that depend from and incorporate the limitations of method claim 21. Applicant hereby renews the request that these claims be rejoined, upon determination that claim 21 is patentable.

The undersigned understands the reasoning in the Office Action for restricting these claims out of the elected group. However, should the Examiner determine that the patentability of these claims can be determined without imposing an undue burden, she is invited to rejoin the claims back into the group under examination. This would save applicant the expense and delay of filing a separate application in order to obtain coverage for this embodiment.

Request for Interview

Applicant respectfully requests that all outstanding rejections be reconsidered and withdrawn. The application is believed to be in condition for allowance, and a prompt Notice of Allowance is requested.

In the event that the Examiner determines that there are other matters to be addressed, applicant hereby requests an interview by telephone.

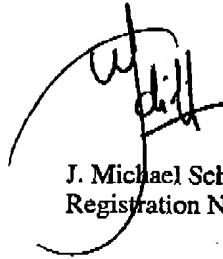
PATENT  
USSN 09/872,183  
Docket 094/004d

Fees Due

Enclosed with this Amendment is authorization to charge the Deposit Account for the extension of time and the added claims.

Should the Patent Office determine that a further extension of time or any other relief is required for further consideration of this application, applicant hereby petitions for such relief, and authorizes the Commissioner to charge the cost of such petitions and other fees due in connection with the filing of these papers to Deposit Account No. 07-1139, referencing the docket number indicated above.

Respectfully submitted,



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